

## Communicable Disease and Epidemiology News

Published continuously since 1961

Laurie K. Stewart, MS, Editor



Public Health

Seattle & King County

HEALTHY PEOPLE. HEALTHY COMMUNITIES.

Epidemiology, Prevention Division

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Vol. 43, No. 8

August 2003

- Tick-Borne Relapsing Fever in Washington State
- 'Tis the Season for Vibriosis
- West Nile Virus Update
- Measles Alert

### Tick-borne Relapsing Fever in Washington State

In July 2003, the Kittitas County Health Department and the Washington State Department of Health were notified of possible cases of tick-borne relapsing fever (TBRF) in 5 extended family members who stayed at a private rural cabin in Kittitas County. Three cases have been confirmed as TBRF by identification of *Borrelia* spirochetes on peripheral smear, and serological testing is pending on 2 others (one probable and one possible case). All ill persons have fully recovered and are residents of Washington State and British Columbia, Canada. All persons who visited the cabin recently have been notified. An environmental investigation of the cabin and the surrounding area is ongoing.

In the United States, relapsing fever is a tick-borne disease that typically occurs in the western states and is transmitted to humans by the bites of argasid tick species infected with the *Borrelia* spirochete from feeding on rodents and squirrels. These ticks typically feed only at night and do not remain attached like hard ticks do. They are found where rodents burrow and nest, and are difficult to eradicate. These ticks can survive for long periods between blood meals, and typically don't produce a noticeable bite. In the western United States and British Columbia, exposure to relapsing fever commonly occurs in older buildings and cabins located in higher elevations.

This disease is characterized by recurrent fevers of up to 105°F, lasting 2 to 9 days, followed by afebrile periods which last 2 to 4 days. The number of relapses can be 1 to 10, or greater. Other symptoms can include headache, chills, body aches, prostration, nausea and vomiting, and in some cases, a transitory petechial rash during the initial febrile period. Neurologic sequelae, such as aseptic meningitis and cranial nerve palsy, occur, but are rare. The incubation period is typically 8 days (range 4 to 18 days).

**Relapsing fever is diagnosed by evidence of spirochetes in blood drawn during a febrile episode, bone marrow aspirates or cerebral spinal fluid.**

Relapsing fever is not spread person-to-person, although this infection can be acquired in utero.

Five cases have been reported in King County since 1998, one in 2000, and four in 2002. All cases had exposures outside of Washington State (suspected exposures occurred in Idaho, Montana and Oregon).

The 2002 King County cases were members of an extended family with exposures at an old cabin where extermination of rodents occurred just prior to exposure.

**Persons with suspected or confirmed TBRF should be reported to Public Health for investigation of exposure and for identification of other exposed persons.** Treatment of TBRF is with an appropriate antibiotic; prophylactic treatment is not recommended for asymptomatic persons who may have been exposed to TBRF-these persons should be monitored for fever for 18 days after last exposure.

### 'Tis the Season for Vibriosis

In the warm, summer months, vibriosis cases in Washington State increase because *vibrio* organisms multiply rapidly in warm weather. *Vibrio spp.* live in marine coastal waters, and humans become infected when they eat contaminated seafood (especially shellfish) that is uncooked, or undercooked. Since the Pacific Northwest is home to both commercial and recreational shellfish harvesting, each case of reported vibriosis is carefully investigated to determine the source. All shellfish commercially marketed to stores and restaurants in Washington State are given tags which allows the Washington Food Safety and Shellfish Programs to trace the shellfish back to its point of origin. This may prompt environmental sampling of the harvest site, identification of clusters of illness associated with shellfish harvested at a site, and sometimes closure of a site. Because *Vibrio spp.* multiply rapidly in shellfish that is not handled properly, sometimes the investigation focuses on proper food handling procedures, such as keeping the seafood cold and preventing cross-contamination.

*V. parahaemolyticus* is the species most common in the Pacific Northwest. It causes an acute illness characterized by severe cramping, abdominal pain, and explosive watery diarrhea. Low-grade fever, chills and headache are occasionally present. The incubation period is typically 24 to 48 hours after ingestion of the contaminated food. It is not transmitted person-to-person. Other *Vibrio spp.* are also found in Washington State waters and cause similar symptoms. Persons with hypochlorhydria, persons who are immune compromised, the elderly, and the very young are particularly vulnerable and should be cautioned to avoid eating raw or undercooked shellfish.

Please report all cases of vibriosis (whatever the type) within 3 days of diagnosis. Waiting to report vibriosis until the type has been identified may confound attempts to trace any implicated shellfish. **Please do not rely on laboratories to report vibriosis (or other notifiable condition, for that matter) because *V. cholerae* is the only *Vibrio* type that laboratories are required to report.**

For a list of laboratory results that laboratories are required to report in Washington State, see: <http://www.doh.wa.gov/notify/other/labposter.pdf>

For a list of conditions that health care providers are required to report in Washington State, go to: <http://www.doh.wa.gov/notify/other/docposter.pdf>

West Nile Virus Update

On August 4<sup>th</sup> a Yakima County resident became ill, and was hospitalized. Preliminary results are positive for West Nile Virus, however the results still must be confirmed by the Centers for Disease Control and Prevention in Atlanta. If confirmed, this would be the first locally acquired WNV infection in Washington State this year. The condition of the patient has since improved and he has been discharged from the hospital.

Locally, the PHSKC has received 2,330 dead bird complaints since May. One hundred and eight birds have been sent for testing at Washington State University, and results have been received for 66 birds. All 66 birds were negative.

Nationally, as of August 18<sup>th</sup>, there have been 536 human cases of West Nile Virus infection, 11 of them have been fatal.

**Please notify PHSKC of hospitalized adult or pediatric patients with any of the following clinical syndromes:**

- 1) Viral encephalitis
- 2) Aseptic meningitis occurring May through November in any patient ≥18 years of age.
- 3) Presumed Guillain-Barre syndrome or acute flaccid paralysis, even in the absence of fever and other neurologic symptoms.

- 4) Suspected West Nile virus infection in patients with potential recent blood donation or transfusion histories, organ transplant recipients, laboratory or occupational exposures, transplacental or breast-feeding associated exposures.
- 5) Laboratory confirmed WNV infection in any patient.

**Report cases to Public Health at 206-296-4774 within 3 work days**, and sooner when possible.

For more information about West Nile Virus, go please see the June 2003 issue of the *EpiLog*: [http://www.metrokc.gov/health/phnr/prot\\_res/epilog/vol4306.htm](http://www.metrokc.gov/health/phnr/prot_res/epilog/vol4306.htm)

Measles Alert

Outbreaks of measles in the Marshall Islands and Hawaii, and a case of measles in an Oregon State University student in early August, heightens the possibility that we may see cases of measles in King County. **Please report any *suspect* cases of measles immediately, day or night; do not wait for laboratory confirmation before reporting.** Public Health will advise on the collection of appropriate specimens, and help expedite testing at the Washington State Department of Health Laboratory.

Measles is characterized by prodromal fever, cough, coryza, conjunctivitis, and Koplik spots (pin-point gray-white spots surrounded by erythema) on the buccal mucosa. On the third to seventh day, a red rash appears on the face, and later becomes generalized, and blotchy or confluent. The last report of measles in King County occurred in March 2001.

**Disease Reporting**

AIDS/HIV..... (206) 296-4645

STDs..... (206) 731-3954

TB ..... (206) 731-4579

Other Communicable Diseases ..... (206) 296-4774

Automated 24-hr reporting line  
for conditions not immediately  
notifiable..... (206) 296-4782

**Hotlines:**

Communicable Disease ..... (206) 296-4949

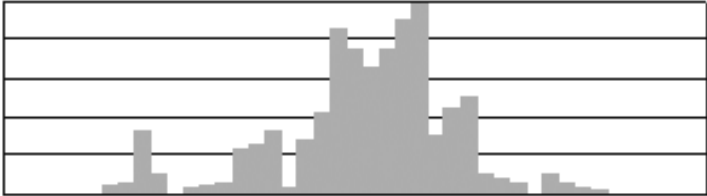
HIV/STD..... (206) 205-STDS

**EPI-LOG Online:** [www.metrokc.gov/health/providers](http://www.metrokc.gov/health/providers)

Subscribe to PHSKC INFO-X (Public Health listserv) at:  
<http://mailman.u.washington.edu/mailman/listinfo/phskc-info-x>

Reported Cases of Selected Diseases, Seattle & King County 2003				
	Cases Reported in July		Cases Reported Through July	
	2003	2002	2003	2002
Campylobacteriosis	33	43	142	184
Cryptosporidiosis	7	1	28	8
Chlamydial infections	496	368	2,942	2,502
Enterohemorrhagic <i>E. coli</i> (non-O157)	1	0	1	0
<i>E. coli</i> O157: H7	3	3	15	8
Giardiasis	11	10	63	108
Gonorrhea	99	114	814	837
<i>Haemophilus influenzae</i> (cases <6 years of age)	0	0	0	0
Hepatitis A	2	1	17	24
Hepatitis B (acute)	2	3	21	17
Hepatitis B (chronic)	39	37	342	294
Hepatitis C (acute)	1	1	6	8
Hepatitis C (chronic, confirmed/probable)	62	110	574	984
Hepatitis C (chronic, possible)	15	33	143	258
Herpes, genital (primary)	58	50	392	395
HIV and AIDS (includes only AIDS cases not previously reported as HIV)	48	60	274	402
Measles	0	0	0	0
Meningococcal Disease	0	3	3	15
Mumps	0	0	0	0
Pertussis	23	7	143	64
Rubella	0	0	0	2
Rubella, congenital	0	0	0	0
Salmonellosis	21	31	134	118
Shigellosis	12	5	70	31
Syphilis	9	2	50	21
Syphilis, congenital	0	0	0	0
Syphilis, late	2	3	27	23
Tuberculosis	17	15	87	85

The *Epi-Log* is available in alternate formats upon request.



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